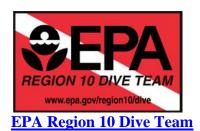
US ERA ARCHIVE DOCUMENT



Yakima River Eutrophication Study, near Prosser, WA, August, 2005

What: The EPA Region 10 Dive Team assisted US Geological Survey (USGS), South Yakima Conservation District, and Benton Conservation District in a joint eutrophication study on the Yakima River.

Why: The study's major focus is the substantial increase in plant growth in the lower river in recent years which has lead to extremely low dissolved oxygen levels (3-6 mg/L) and extreme pH swings (e.g., 7.4 to 9.5). WDOE intends to use the information from this study to begin developing a TMDL for dissolved oxygen and pH in the lower river.

Where: 1) Two reaches along the Lower Yakima River; the Kiona Reach, river miles (RMs) 18 to 30 (down stream of Benton City), and Mabton/ Prosser Pool Reach, RMs 47 to 55 (upstream of Prosser Dam). 2) Grandview WWTP Outfall, RM 55 (400 meters downstream of Euclid Bridge).

When: Dives were conducted on August 30 and 31, 2005.

How: Divers would pendulum from the anchored dive platform out to as many as 5 sites per transect to collect aquatic plant biomass for identification on the surface and later analysis at the University of Idaho. Diving was used as a number of surface collection methods were found to be unsuccessful for the types of plants found. Due to the persistent low levels of pesticides in the water column, divers wore drysuits and conducted abbreviated decontamination.

See the <u>safety / sop</u> page for more information regarding polluted water scientific diving and diver decon.

Results: Divers found substantial plant biomass in the Kiona reach, but little to no plant life in the Prosser Pool reach. Samples are being analyzed now in this ongoing study. While in the area, divers also conducted an outfall inspection for the Grandview waste water treatment plant. This inspection found no physical defects in the outfall.

More Details:

<u>USGS Yakima River Eutrophication Study Information</u> <u>USGS Report on Yakima River Findings</u>

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Photos:



Diver approaches a sampling station on a transect tethered to the boat



Diver standing on the bottom conveys samples to SYCD and WDOE staff.



Diver undergoing a simple freshwater rinse decon before doffing personal protective gear.

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